



AFCTN Test Report 93-034

AFCTB-ID
93-081



Technical Raster Transfer



Using:

4950th/Test Wing/AMIS' Data



MIL-R-28002A (Raster)



Quick Short Test Report



13 August 1993

Prepared for

Electronic Systems Center

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1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MILSTD1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze 4950th Test Wing/AMIS's interpretation and use of the CALS standards, in transferring technical Raster data. The 4950th TW/AMIS used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFCTB 93-081

Date of
Evaluation: 13 August 1993

Evaluator: George Elwood
Air Force CALS Test Bed
HQ ESC/ENCP
4027 Colonel Glenn Hwy
Suite 200
Dayton OH 45431-1672

Data
Originator: Diane Sondergelt
4950th Test Wing/AMIS
Wright-Patterson AFB OH 45433
(513) 257-9745

Data
Description: Technical Manual Test
3 Document Declaration files
3 Raster files

Data
Source System:

1840

HARDWARE

InterPro 6455 (Intergraph)
Kennedy Quad Density Tape Drive

SOFTWARE

DP/CALS EDM (Electronic Delivery Module)
from Intergraph

Raster

HARDWARE

InterPro 6455 (Intergraph)

SOFTWARE

I/EMS (Engineering Modeling System)
ITgRASDRV - Intergraph Type-9 Raster
Device Driver
ISCNVFIL - I/SCAN Raster Utilities
all from Intergraph

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN Tapetool v1.2.10 UNIX

AGFA Compugraphics CAPS/CALS v40.4

PC 486/50

AFCTN Tapetool v1.2.10 DOS

MIL-R-28002 (Raster)

SUN SparcStation 2

ArborText g42tiff

AFCTN validg4

AFCTN xrastb.sun4

IGES Data Analysis (IDA) IGESView 3.0

Island Graphics IslandPaint 3.0

Rosetta Technologies Prepare/Preview

PC 486/50

Inset Systems HiJaak v2.1

Xerox Ventura Publisher

Standards

Tested:

MIL-STD-1840A

MIL-R-28002A

3. 1840A Analysis

3.1 External Packaging

The tape was hand delivered to the Air Force CALS Test Bed (AFCTB). It was not enclosed in a box in accordance with ASTM D 3951.

The tape was not enclosed in a barrier bag or barrier sheet material, as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Attached to the tape was a packing list showing all files recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTN *Tapetool* v1.2.10 utility. Twenty-three errors and four notes were encountered while evaluating the contents of the tape labels. The errors were of the following three types:

1. The header blocks for each tape section should be set to "000000". All header blocks had no value inserted. The EOF markers should then reflect the actual number of blocks read. None of the EOF marks contained this information. The block count had no value shown.
2. The declaration files were written with the actual data and not padded out. While this is not an error, short blocks can be misread on some tape systems. These short blocks will be seen as noise and will be dropped.
3. Several of the tape markers had ANSI X3.27 errors reported due to data in reserved areas. Although nothing was displayed, further checking discovered that the "null" character was used in these locations instead of the re-

quired "space" character. The "null" character is a non-printing character.

A note was reported on the tape label version. MIL-STD-1840A permits the use of both version three and four. The use of the most current standard should be used and noted.

See Appendix A, section two for the complete TAPE_SCN.LOG file.

The tape was read using the AGFA CAPS read1840A utility with reported errors. The AGFA Tapetool reported the block count error.

The physical structure of the tape does not meet the CALS MIL-STD-1840A requirements.

3.2.2 Declaration and Header Fields

Twenty-four errors and 21 notes were found while evaluating the Document Declaration files and data file headers.

All three Declaration files reported the same errors and notes. The first reported error was in the date of transmission record. The value should have reflected a date in the YYYYMMDD format.

dtetrn: m 9

*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.

*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year followed by a two digit month followed by a two digit day.

An error not reported by Tapetool is the use of lower case letters in the file count record. The lower case letter was responsible for the error reported by AGFA's read1840A utility.

filcnt: r1

All three Raster files reported the same errors. The Raster orientation values should have started one space after the colon. The values are three digits in length, with a zero filling blank values.

The pel count value should be a six character value with zeros filling blank values.

The Raster density value must be a four digit number with zeros filling the blank values.

Shown below is the section in error from one of the Raster files.

rorient: 0,270
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path direction was not a zero-filled three character number.
*** NOTE - The header record will be given the value 000,270.
*** NOTE - Correction made in new Raster Header File.
rpelcnt: 4416, 6916
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path pels was not a zero-filled six character number.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for progression lines was not a zero-filled six character number.
*** NOTE - The header record will be given the value 004416,006916.
*** NOTE - Correction made in new Raster Header File.
rdensty: 200
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for raster density was not a zero-filled four character number.
*** NOTE - The header record will be given the value 0200.
*** NOTE - Correction made in new Raster Header File.

See Appendix A, section three for the complete Evaluation Log. This portion of the tape does not meet the CALS MIL-STD-1840A requirements.

4. IGES Analysis

No Initial Graphics Exchange Specification (IGES) files were included on the tape.

5. SGML Analysis

No Standard Generalized Markup Language (SGML) files were included on the tape.

6. Raster Analysis

The tape contained three Raster files. All three files were evaluated using the AFCTN *validg4* utility. This program reported that all files meet the CALS MIL-R-28002A specification.

The files were read into the AFCTN *calstb.475* viewing utility. No problems were noted. The files were viewed using the AFCTB *xrastb.sun4* with no reported errors or problems. The images were clean with no orphan pixels noted. The images were straight without a notable angle.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The files were converted using Arbortext's *g42tiff* utility without a reported error. The resulting files were read into Island Graphics' *IslandPaint* and displayed. When an attempt to print the files was made the system reset itself.

NOTE: Per Andrew Bridge of Island Graphics, the *IslandPaint* v3.0, which was used for this report, is not the most current version available. Version 4.0 was made available to the AFCTB in August of 1993 and will be used on all future tests conducted.

The files were converted using Inset Systems' *HiJaak for DOS* into an IMG format without a reported error. The resulting files were read into the Xerox *Ventura Publisher*, displayed and printed.

The files were read into IDA's *IGESView*, displayed and printed without a reported error.

The Raster files were converted using Rosetta Technologies' *Prepare* without a reported error. The resulting files were read into *Preview* and displayed.

The Raster files meet the CALS MIL-R-28002A specification.

7. CGM Analysis

No Computer Graphics Metafile (CGM) files were included on the tape.

8. Conclusions and Recommendations

The physical structure of the tape had several ANSI x3.27 errors. The CALS headers and Declaration file also had errors. The physical structure, including the headers and Declaration files, of the tape does not meet the CALS MIL-STD-1840A requirements.

The Raster files meet the CALS MIL-R-28002A specification.

Because of the errors in the tape structure, headers, and Declaration files the tape does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

CALS Test Network Catalog Evaluation - Version 1.2; Release 10 (C)

Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information

ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri Aug 13 11:21:16 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/u1210/Set010

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D002	Document Declaration	D/00260	02048/000001	Extracted
D003	Document Declaration	D/00260	02048/000001	Extracted
D001R001	Raster	F/00128	02048/000050	Extracted
D002R001	Raster	F/00128	02048/000024	Extracted
D003R001	Raster	F/00128	02048/000046	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release 10 (C)

Standards referenced:

ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri Aug 13 11:21:08 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1TAPE01

SONDERGD

3

Label Identifier: VOL1

Volume Identifier: TAPE01

Volume Accessibility:

Owner Identifier: SONDERGD

Label Standard Version: 3

*** NOTE (ANSI X3.27; 8.3.1.8) - The Label Standard Version
should be 4 to represent the current level of ANSI X3.27.

HDR1D001

TAPE0100010001000100 93220 93220

Label Identifier: HDR1

File Identifier: D001

File Set Identifier: TAPE01

File Section Number: 0001

File Sequence Number: 0001

Generation Number: 0001

Generation Version Number: 00

Creation Date: 93220

Expiration Date: 93220

File Accessibility:

Block Count:

Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2D020480026000SONDERGD//USR/BIN

B

00

Label Identifier: HDR2

Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 391 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
proned to be interpreted as noise by some tape drives.
Tape Label => 2048, Actual => 391, Block Number => 1

Number of data blocks read = 1.

***** Tape Mark *****

EOF1D001 TAPE0100010001000100 93220 93220

Label Identifier: EOF1
File Identifier: D001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 93220
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
to the actual block count. Expected => 0; Actual => 1

EOF2D0204800260000SONDERGD//USR/BIN B 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

HDR1D002 TAPE0100010002000100 93220 93220

Label Identifier: HDR1
File Identifier: D002
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 93220
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2D020480026000SONDERGD//USR/BIN B 00

.Label Identifier: HDR2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 393 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
proned to be interpreted as noise by some tape drives.
Tape Label => 2048, Actual => 393, Block Number => 1

Number of data blocks read = 1.

***** Tape Mark *****

EOF1D002 TAPE0100010002000100 93220 93220

Label Identifier: EOF1
File Identifier: D002
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220

Expiration Date: 93220
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
to the actual block count. Expected => 0; Actual => 1

EOF2D020480026000SONDERGD//USR/BIN B 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

HDR1D003 TAPE0100010003000100 93220 93220

Label Identifier: HDR1
File Identifier: D003
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0003
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 93220
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2D020480026000SONDERGD//USR/BIN B 00

Label Identifier: HDR2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 399 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
proned to be interpreted as noise by some tape drives.
Tape Label => 2048, Actual => 399, Block Number => 1

Number of data blocks read = 1.

***** Tape Mark *****

EOF1D003 TAPE0100010003000100 93220 93220

Label Identifier: EOF1
File Identifier: D003
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0003
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 93220
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
to the actual block count. Expected => 0; Actual => 1

EOF2D020480026000SONDERGD//USR/BIN B 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

***** Tape Mark *****

HDR1D001R001 TAPE0100010004000100 93220 70001

Label Identifier: HDR1
File Identifier: D001R001
File Set Identifier: TAPE01
File Section Number: 0001

File Sequence Number: 0004
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70001
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: HDR2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 50.

***** Tape Mark *****

EOF1D001R001 TAPE0100010004000100 93220 70001

Label Identifier: EOF1
File Identifier: D001R001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0004
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70001
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal

to the actual block count. Expected => 0; Actual => 50

EOF2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: EOF2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

HDR1D002R001 TAPE0100010005000100 93220 70000

Label Identifier: HDR1
File Identifier: D002R001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0005
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70000
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: HDR2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 24.

***** Tape Mark *****

EOF1D002R001 TAPE0100010005000100 93220 70000

Label Identifier: EOF1
File Identifier: D002R001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0005
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70000
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
to the actual block count. Expected => 0; Actual => 24

EOF2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: EOF2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

HDR1D003R001 TAPE0100010006000100 93220 70000

Label Identifier: HDR1
File Identifier: D003R001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0006
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70000
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: HDR2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 46.

***** Tape Mark *****

EOF1D003R001 TAPE0100010006000100 93220 70000

Label Identifier: EOF1
File Identifier: D003R001
File Set Identifier: TAPE01
File Section Number: 0001
File Sequence Number: 0006
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93220
Expiration Date: 70000
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.1) - Columns 74-80 are reserved
for future standardization and must be spaces.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
to the actual block count. Expected => 0; Actual => 46

EOF2F020480012800SONDERGD//USR/BIN M B 00

Label Identifier: EOF2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

***** Tape Mark *****

End of Volume TAPE01

End Of Tape File Set

Deallocating /dev/rmt0...

Tape Import Process terminated with 24 error(s), 0 warning(s),
and 3 note(s).

9.3 Tape File Set Validation Log

CALS Test Network File Set Evaluation - Version 1.2; Release 10 (C)

Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Fri Aug 13 11:21:16 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set010

Found file: D001

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: Intergraph at 4950TW. WPAFB OH

srcdocid: X92D127595, Sht 1

srcrelid: NONE

chglvl: ORIGINAL

dteisu: 19930802

dstsys: EDCARS, OO_PKDE, HAFB UT

dstdocid: X92D127595, Sht 1

dstrelid: NONE

dtetrn: m 9

*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.

*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year followed by a two digit month followed by a two digit day.

dlvacc: NONE

filcnt: r1

ttlcls: UNCLASSIFIED

doccls: UNCLASSIFIED

doctyp: WIRING DIAGRAM

doctl: WIRING DIAGRAM, TFE 28 VDC POWER AND CONTROL

1 error(s), 0 warning(s), and 1 note(s) were encountered
in Document Declaration File D001.

Found file: D001R001

Extracting Raster Header Records...

Evaluating Raster Header Records...

srcdocid: X92D127595

07878

00010001UMEHU

dstdocid: X92D127595

txtfilid: NONE

figid: NONE

srcgph: NONE

doccls: Unclass
rtype: 1
rorient: 0,270
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path direction was not a zero-filled three character number.
*** NOTE - The header record will be given the value 000,270.
*** NOTE - Correction made in new Raster Header File.
rpelcnt: 4416, 6916
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path pels was not a zero-filled six character number.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for progression lines was not a zero-filled six character number.
*** NOTE - The header record will be given the value 004416,006916.
*** NOTE - Correction made in new Raster Header File.
rdensty: 200
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for raster density was not a zero-filled four character number.
*** NOTE - The header record will be given the value 0200.
*** NOTE - Correction made in new Raster Header File.
notes: Created through ODI raster file driver

7 error(s), 0 warning(s), and 6 note(s) were encountered
in Raster File D001R001.

Saving Raster Header File: D001R001_HDR

Saving Raster Data File: D001R001_GR4

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation.

Numbering scheme evaluation complete.

Checking file count...

No errors were encountered during file count verification.

File Count verification complete.

A total of 8 error(s), 0 warning(s), and 7 note(s) were
encountered in Document D001.

Found file: D002

Creating directory => /cals/u1210/Set010/D002

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: Intergraph at 4950TW. WPAFB OH

srcdocid: X92D127595, Sht 2

srcrelid: NONE

chglvl: ORIGINAL

dteisu: 19930802
dstsys: EDCARS, OO-PKDE, HAFB UT
dstdocid: X92D127595, Sht 2
dstrelid: NONE
dtetrm: m 9
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year
followed by a two digit month followed by a two digit day.
dlvacc: NONE
filcnt: r1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: WIRING DIAGRAM
doctl: WIRING DIAGRAM, TFE-25 28VDC POWER AND CONTROL

1 error(s), 0 warning(s), and 1 note(s) were encountered
in Document Declaration File D002.

Found file: D002R001
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: X92D127595 07878 00010001UMEHU
dstdocid: X92D127595
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: Unclass
rtype: 1
rorient: 0,270
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path direction was not a
zero-filled three character number.
*** NOTE - The header record will be given the value 000,270.
*** NOTE - Correction made in new Raster Header File.
rpelcnt: 4416, 6916
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path pels was not a
zero-filled six character number.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for progression lines was not a
zero-filled six character number.
*** NOTE - The header record will be given the value 004416,006916.
*** NOTE - Correction made in new Raster Header File.
rdensty: 200
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for raster density was not a
zero-filled four character number.
*** NOTE - The header record will be given the value 0200.
*** NOTE - Correction made in new Raster Header File.

notes: Created through ODI raster file driver

7 error(s), 0 warning(s), and 6 note(s) were encountered
in Raster File D002R001.

Saving Raster Header File: D002R001_HDR

Saving Raster Data File: D002R001_GR4

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation.

Numbering scheme evaluation complete.

Checking file count...

No errors were encountered during file count verification.

File Count verification complete.

A total of 8 error(s), 0 warning(s), and 7 note(s) were
encountered in Document D002.

Found file: D003

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: Intergraph at 4950TW. WPAFB OH

srcdocid: X92D127597, Sht 1

srcrelid: NONE

chglvl: ORIGINAL

dteisu: 19930802

dstsys: EDCARS, OO-PKDE, HAFB UT

dstdocid: X92D127597. Sht 1

dstrelid: NONE

dtetrn: m 9

*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.

*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year
followed by a two digit month followed by a two digit day.

dlvacc: NONE

filcnt: r1

ttlcls: UNCLASSIFIED

doccls: UNCLASSIFIED

doctyp: WIRING DIAGRAM

docttl: WIRING DIAGRAM, TFE-25 115V 400HZ POWER DISTRIBUTION

1 error(s), 0 warning(s), and 1 note(s) were encountered
in Document Declaration File D003.

Found file: D003R001

Extracting Raster Header Records...

Evaluating Raster Header Records...

srcdocid: X92D127597 07878 00010001UMEHU
dstdocid: X92D127597
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: Unclass
rtype: 1
rorient: 0,270
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path direction was not a
zero-filled three character number.
*** NOTE - The header record will be given the value 000,270.
*** NOTE - Correction made in new Raster Header File.
rpelcnt: 4416, 6916
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for pel path pels was not a
zero-filled six character number.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for progression lines was not a
zero-filled six character number.
*** NOTE - The header record will be given the value 004416,006916.
*** NOTE - Correction made in new Raster Header File.
rdensty: 200
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Value for raster density was not a
zero-filled four character number.
*** NOTE - The header record will be given the value 0200.
*** NOTE - Correction made in new Raster Header File.
notes: Created through ODI raster file driver

7 error(s), 0 warning(s), and 6 note(s) were encountered
in Raster File D003R001.

Saving Raster Header File: D003R001_HDR

Saving Raster Data File: D003R001_GR4

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation.

Numbering scheme evaluation complete.

Checking file count...

No errors were encountered during file count verification.

File Count verification complete.

A total of 8 error(s), 0 warning(s), and 7 note(s) were
encountered in Document D003.

A grand total of 24 error(s), 0 warning(s), and 21 note(s) were
encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

9.4 Other Tape Reading Logs

```
/cals/caps/Bin/read1840A: --- Read declaration file 'D001' ---  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 1  
/cals/caps/Bin/read1840A: --- Read declaration file 'D002' ---  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 1  
/cals/caps/Bin/read1840A: --- Read declaration file 'D003' ---  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 1  
/cals/caps/Bin/read1840A: writing data file 'aftb9381/X92D127595Sht1/X92D127595Sht11.R'  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 50  
-- declaration file indicates 0 files of type T
```

<<<< PART OF LOG FILE REMOVED HERE >>>>

```
-- declaration file indicates 0 files of type Z  
*** WARNING: Declaration file indicates 0 Raster files, but tape contains 1 files.  
/cals/caps/Bin/read1840A: writing data file 'aftb9381/X92D127595Sht2/X92D127595Sht21.R'  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 24  
-- declaration file indicates 0 files of type T
```

<<<< PART OF LOG FILE REMOVED HERE >>>>

```
-- declaration file indicates 0 files of type Z  
*** WARNING: Declaration file indicates 0 Raster files, but tape contains 1 files.  
/cals/caps/Bin/read1840A: writing data file 'aftb9381/X92D127597Sht1/X92D127597Sht11.R'  
*** ERROR - block counts do not match ***  
    block count in trailer: 0, blocks read: 46  
-- declaration file indicates 0 files of type T
```

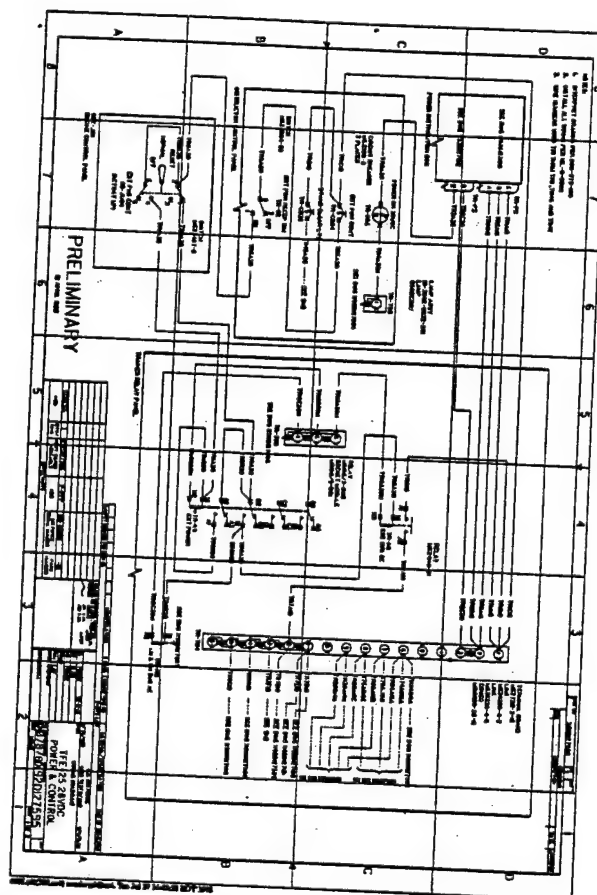
<<<< PART OF LOG FILE REMOVED HERE >>>>

```
-- declaration file indicates 0 files of type Z  
*** WARNING: Declaration file indicates 0 Raster files, but tape contains 1 files.
```

10. Appendix B - Raster Detailed Analysis

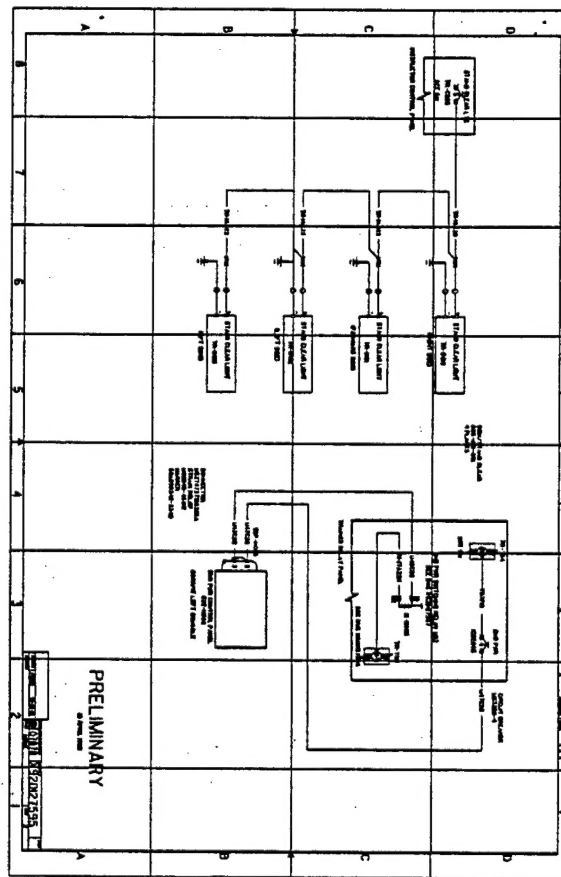
10.1 File D001R001

10.1.1 Output IGESView



10.2 File D002R001

10.2.1 Output IGESView



10.3 File D003R001

10.3.1 Output IGESView

